
(1) Tarpila S et al.

(2) Marteau P et al.
Digestibility and tolerance of ispaghula husk in man (abstract). Gastroenterology 1990; 98 (5 part 2): A189

(3) Kennedy JF et al.
Structural data for the carbohydrate of ispaghula husk ex *Plântago ovata* Forsk. Carbohydr Res 1979; 75: 265-74

(4) Gray GM.

(5) Southgate DAT.

(6) Sandhu JS et al.

(7) Life Sciences Research Office (LSRO).
The evaluation of the safety of using psyllium seed husk as a food ingredient. Bethesda, Federation of American Societies for Experimental Biology; 1993

(8) Andersen JR et al.

(9) Pomare EW et al.

(10) Mortensen PB et al.
(11) Storer GB et al. 
Effects of dietary oat bran and diabetes on plasma and caecal volatile fatty acids in the rat. 

(12) Marteau P et al. 
Digestibility and bulking effect of ispaghula husks in healthy humans. 
Gut 1994; 35: 1747-52

(13) Wolever TMS et al. 
Effect of method of administration of psyllium on glycemic response and carbohydrate digestibility. 

(14) Wolever TMS, Robb PA. 
Effect of guar, pectin, psyllium, soy polysaccharide, and cellulose on breath hydrogen and methane in healthy subjects. 
Am Gastroenterol 1992; 87: 305-10.

(15) Wolever TMS et al. 
Guar, but not psyllium, increases breath methane and serum acetate concentrations in human subjects. 

(16) Lewitt M et al. 
The relation of passage of gas and abdominal bloating to colonic gas production. 
Ann Intern Med 1996; 124: 422-4

(17) Bianchi M et al. 
Effects of guar gum, ispaghula and microcrystalline cellulose on abdominal symptoms, gastric emptying, orocaecal transit time and gas production in healthy volunteers. Digestive & Liver Disease 2002; 43: 129-33

(18) McRorie JW et al. 
Psyllium is superior to docusate sodium for treatment of chronic constipation. 
Aliment Pharmacol Ther 1998a; 12: 491-7

(19) McRorie J et al. 
Effects of fiber laxatives and calcium docusate on regional water content and viscosity in the large intestine of the pig. 
Dig Dis Sci 1998b; 43: 738-45

(20) Atal CK et al. 
Evaluation of ispaghula husk. 
Indian J Pharm 1963; 25: 376-9

(21) Cummings JH. 
The effect of dietary fibre on faecal weight and composition. 

(22) Struthers BJ. 
Warning – Feeding animal’s hydrophilic fibre sources in dry diets. 
J nutr 1986; 116: 47-9

(23) McRorie J et al. 
Characterization of propagating contractions in the proximal colon of ambulatory mini pigs.
P.218, Table 1.

(25) Marlett JA et al. 
An unfermented gel compound of psyllium husk promotes laxation as a 
lubricant in humans. 

(26) Brunton LL. 
Agents affecting gastrointestinal water flux and motility, digestants, and bile acids. 
Gilman AG, Rall TW, Nies AS, Taylor P, editors. The Pharmacological Basis of Therapeutics, 
(corresponding to ESCOP monograph reference 6)

(27) Kay RM et al. 
Origin, chemistry, physiological effects and clinical importance of dietary fibre. 
(corresponding to ESCOP monograph reference 7)

(28) Bradshaw MJ et al. 
Antidiarrhoeal agents: clinical pharmacology and therapeutic use. 
Curr Ther 1983: 65-73 
(corresponding to ESCOP monograph reference 17)

(29) Smalley JR et al. 
Use of psyllium in the management of chronic non-specific diarrhoea of childhood. 
(corresponding to ESCOP monograph reference 21)

(30) Eherer AJ et al. 
Effect of psyllium, calcium polycarbophil and wheat bran on secretory diarrhoea induced by 
phenolphthalein. 
Gastroenterology 1993; 104: 1007-12 
(corresponding to ESCOP monograph reference 13)

(31) Turley SD et al. 
Psyllium augments the cholesterol-lowering action of cholestyramine in hamsters by enhancing 
sterol loss from the liver. 
Gastroenterology 1992; 107: 444-52 
(corresponding to ESCOP monograph reference 65)

(32) Turley SD et al. 
Cholesterol-lowering action of psyllium mucilloid in the hamster: sites and possible 
mechanisms of action. 
Metabolism 1991; 40: 1063-73 
(corresponding to ESCOP monograph reference 66)

(33) McCall MR et al. 
Psyllium husk I: effect on plasma lipoproteins, cholesterol metabolism and atherosclerosis in 
African green monkeys. 
Am J Clin Nutr 1992; 56: 376-84 
(corresponding to ESCOP monograph reference 67)
(34) Gallaher DD et al.
Viscosity and fermentability as attributes of dietary fibre responsible for the hypocholesterolemic effect in hamsters.
J Nutr 1993; 123: 244-52
(corresponding to ESCOP monograph reference 68)

(35) Matheson HB et al.
Cholesterol 7α-hydroxylase activity is increased by dietary modification with psyllium hydrocolloid, pectin, cholesterol and cholestyramine in rats.
(corresponding to ESCOP monograph reference 69)

(36) Horton JD et al.
Regulation of hepatic 7α-hydroxylase expression by dietary psyllium in hamsters.
J Clin Invest 1994; 93: 2084-92
(corresponding to ESCOP monograph reference 70)

(37) Fernandez ML et al.
Psyllium reduces plasma LDL in guinea pigs by altering hepatic cholesterol homeostasis.
(corresponding to ESCOP monograph reference 71)

(38) Chen WL, Anderson JW, Jennings D.
Propionate may mediate the hypocholesterolemic effects of certain soluble plant fibers in cholesterol-fed rats

(39) Ganji V et al.
Psyllium husk fibre supplementation to soybean and coconut oil diets of humans: effect on fat digestibility and faecal fatty acid excretion.
(corresponding to ESCOP monograph reference 76)

(40) Chaplin MF et al.
Effect of ispaghula husk on the faecal output of bile acids in healthy volunteers.
(corresponding to ESCOP monograph reference 78)

(41) Everson GT et al.
Effects of psyllium hydrophilic mucilloid on LDL-cholesterol and bile acid synthesis in hypercholesterolemic men.
(corresponding to ESCOP monograph reference 51)

(42) Weingand KW et al.
Effect of psyllium on cholesterol and low density lipoprotein metabolism in subjects with hypercholesterolemia.
Endocrinol Metab 1997; 4: 141-50
(corresponding to ESCOP monograph reference 28)

(43) Capani F et al.
A new dietary fibre for use in diabetes.
IRCS J Med Sci 1980; 8: 661
(corresponding to ESCOP monograph reference 61)
(44) Frati-Munari AC et al.  
Efecto de diferentes dosis de mucilago Plantago psyllium en la prueba de tolerancia a la glucosa.  
Archivos Invest Méd (Mexico) 1989; 20: 147-52  
(corresponding to ESCOP monograph reference 62)

(45) Abraham ZD et al.  
Three-week psyllium-husk supplementation: effect on plasma cholesterol concentrations, faecal steroid excretion, and carbohydrate absorption in men.  
Am J Clin Nutr 1988; 47: 67-74  
(corresponding to ESCOP monograph reference 63)

(46) Cummings JH.  
Nutritional implications of dietary fibre.  
AM J Clin Nutr 1978; 31: S21-9  
(corresponding to ESCOP monograph reference 58)

(47) Anderson JW et al.  
Cholesterol-lowering effects of psyllium hydrophilic mucilloid for hypercholesterolemic men.  
Arch Intern Med 1988; 148: 292-6  
(corresponding to ESCOP monograph reference 50)

(48) Bell LP et al.  
Cholesterol-lowering effects of psyllium hydrophilic mucilloid.  
JAMA 1989; 261: 3419-23  
(corresponding to ESCOP monograph reference 24)

(49) Sierra M et al.  
Therapeutic effects of psyllium in type 2 diabetic patients.  
European Journal of Clinical Nutrition 2002; 56: 830-42

(50) Oliver SD.  
The long-term safety and tolerability of ispaghula husk.  
Journal of the Royal Society of Health 2000; 120: 107-11

(51) Brown DD et al.  
Altered bioavailability of digoxin produced by gastrointestinal medications.  
Clin Res 1979; 27: 610A

(52) Walan A et al.  
Study of digoxin bioavailability during treatment with a bulkforming laxative (Metamucil).  

(53) Levine M et al.  
Biphasic interaction of phenytoin with warfarin.  
Clin Pharm 1984; 3: 200-3

(54) Etman MA.  
Effect of a bulk forming laxative on the bioavailability of carbamazepine in man.  
Drug Dev. Ind Pharm 1995; 21 (16): 1901-6

(55) Perlman BB.  
Interaction between lithium salts and ispaghula husk (letter).  
The Lancet 1990; 335 (8668): 416
D'Arcy PF.
Interaction between lithium salts and ispaghula husk.
Int Pharm J 1990; 4 (4): 145

Toutoungi M et al.
Probable interaction between psyllium and lithium.
Therapie 1990; 45 (4): 358-9

Liel Y et al.
Evidence for a clinical important adverse effect of fibre-enriched diet on the bioavailability of levothyroxine on adult hypothyroid patients.

Chiu AC, Shermann SI.
Effects of Pharmacological Fibre Supplements on Levothyroxine Absorption.
Thyroid 1998; 8: 667-71

Kumar A, Kumar N, Vij JC, Sarin SK, Anand BS.
Optimum dosage of ispaghula husk in patients with irritable bowel syndrome: correlation of symptom relief with whole gut transit time and stool weight.
Gut 1987; 28:150-5

Dettmar PW et al.
A multicentre, general practice comparison of ispaghula husk with lactulose and other laxatives in the treatment of simple constipation.

Fenn GC et al.
A general practice study of the efficacy of Regulan® in functional constipation.
Br J Clin Prac 1986; 40: 192

Marlett JA et al.
Comparative laxation of psyllium with and without senna in an ambulatory constipated population.
Am J Gastroenterol 1987; 82: 333-7

Wang HJ et al.
A randomised, controlled comparison of low-dose polyethylene glycol 3350 plus electrolytes with ispaghula husk in the treatment of adults with chronic functional constipation.
Clinical drug investigation 2004; 24: 569-76

Petticrew M et al.
What's the ‘best buy’ for treatment of constipation? Results of a systematic review of the efficacy and comparative efficacy of laxatives in the elderly.
Br J Gen Pract 1999; 49: 387-93

Tramonte S et al.
The treatment of chronic constipation in adults.
J Gen Intern Med 1997; 12: 15-24

Fichera G et al.
Impiego della ‘Plantago’ in soggetti con patologica organica del tratto anoretalle.
Policlinico 1978; 86: 414-9
(68) Borgia M et al.
Treatment of chronic constipation by a bulk-forming laxative (Fibrolax®).
(corresponding to ESCOP monograph reference 8)

(69) Webster DJ et al.
The use of bulk evacuant in patients with haemorrhoids.

(70) Moesgaard F et al.
High-fibre diet reduces bleeding and pain in patients with haemorrhoids.
Austr N Z J Med 1981; II: 221

(71) Ho YH et al.
Micronized purified flavonidic fraction compared favorably with rubber band ligation and fiber alone in the management of bleeding hemorrhoids: randomized controlled trial.
Diseases of the Colon & Rectum 2000; 43: 66-9

(72) Thorburn HA et al.
Does ispaghula husk stimulate the entire colon in diverticular disease?
Gut 1992; 33: 352-6
(corresponding to ESCOP monograph reference 11)

(73) Ewerth S et al.
Influence on symptoms and transit-time of ViSiblin® in diverticular disease.
Acta Chir Scand (Suppl) 1980; 500: 49-50

(74) Ornstein MH et al.

(75) Prior A et al.
Double blind study of ispaghula husk in irritable bowel syndrome.
Gut 1987; 28: 1510-3

(76) Golechha AC et al.
Role of ispaghula husk in the management of irritable bowel syndrome (a randomized double-blind crossover study).

(77) Jailwala J et al.
Pharmacologic treatment of the irritable bowel syndrome: a systematic review of randomized, controlled trial.
Annals of Internal Medicine 2000; 133: 136-47

(78) Bijkerk CJ et al.
Systematic review: the role of different types of fibre in the treatment of irritable bowel syndrome.
Alimentary pharmacology & therapeutics 2004; 19: 245-51

(79) Hamouz W.
Die Behandlung der akuten und chronischen Diarrhö mit Agiocur®.
(corresponding to ESCOP monograph reference 19)
(80) Frank HA et al.
Successful use of a bulk laxative to control the diarrhea of tube feeding.
(corresponding to ESCOP monograph reference 22)

(81) Qvitzau S et al.

(82) Bobrove AM et al.
Misoprostol, diarrhoea and psyllium mucilloid.
Ann Intern Med 1990; 112: 386
(corresponding to ESCOP monograph reference 20)

(83) Lodge N et al.
A randomized cross-over study of the efficacy of codeine phosphate versus Ispaghula husk in patients with gynaecological cancer experiencing diarrhoea during pelvic radiotherapy. European Journal of Cancer Care 1995; 4: 8-10

(84) Davidson MH et al.
Long-term effects of consuming foods containing psyllium seed husk on serum lipids in subjects with hypercholesterolemia.
(corresponding to ESCOP monograph reference 47)

(85) MacMahon M et al.
Ispaghula husk in the treatment of hypercholesterolemia: a double-blind controlled study.
J Cardiovasc Risk 1998; 5: 167-72
(corresponding to ESCOP monograph reference 30)

(86) Anderson JW et al.
Long-term cholesterol-lowering effects of psyllium as an adjunct to diet therapy in the treatment of hypercholesterolemia.
Am J Clin Nutr 2000; 71: 1433-8
(corresponding to ESCOP monograph reference 31)

(87) Olson BH et al.
Psyllium-enriched cereals lower blood total cholesterol and LDL cholesterol, but not HDL cholesterol, in hypercholesterolemic adults: results of a meta-analysis.
(corresponding to ESCOP monograph reference 46)

(88) Levin EG et al.
Comparison of psyllium hydrophilic mucilloid and cellulose as adjuncts to dietary therapy in mild to moderate hypercholesterolemia.
Arch Intern Med 1990; 150: 1822-7
(corresponding to ESCOP monograph reference 25)

(89) Anderson JW et al.
Hypcholesterolemic effects of different bulk-forming hydrophilic fibres as adjuncts to dietary therapy in mild to moderate hypercholesterolemia.
Arch Intern Med 1991; 151: 1597-602
(corresponding to ESCOP monograph reference 26)
(90) Sprecher DL et al.
Efficacy of psyllium in reducing serum cholesterol levels in hypercholesterolemic patients on high- or low-fat diets.
Ann Intern Med 1993; 119: 545-54
(corresponding to ESCOP monograph reference 27)

(91) Anderson JW et al.
Cholesterol-lowering effects of psyllium intake adjunctive to diet therapy in men and women with hypercholesterolemia: meta-analysis of 8 controlled trials.
(corresponding to ESCOP monograph reference 29)

(92) Dennison BA et al.
Randomized, double-blind, placebo-controlled, two-period crossover clinical trial of psyllium fibre in children with hypercholesterolemia.
J Pediatr 1993; 123: 24-9
(corresponding to ESCOP monograph reference 79)

(93) Davidson MH et al.
Am J Clin Nutr 1996; 63: 96-102
(corresponding to ESCOP monograph reference 48)

(94) Moreno LA et al.
Psyllium fibre and the metabolic control of obese children and adolescents.
Journal of physiology and biochemistry 2003; 59: 235-42

(95) Williams CL et al.
A summary of conference recommendations on dietary fibre in childhood
Pediatrics 1995; 96: 1023-8

(96) Williams CL et al.
Is a high-fibre diet safe for children?
Pediatric 1995; 96: 1014-9

(97) McClung HJ et al.
Constipation and dietary fibre intake in children.
Pediatrics 1995; 96: 999-1001

(98) Bishop C.

(99) Greenhalf JO et al.
Laxative in the treatment of constipation in pregnant and breast-feeding mothers.
The Practitioner 1973; 210: 259-63

(100) Fianu S et al.
Comparison between bulk laxative and irritant laxatives in obstetrical and gynaecological departments.
(101) Rubira N et al.
Occupational asthma and anaphylaxis due to seeds of *Plantago ovata*.
Alergologia e Inmunologia Clinica 2000; 15: 96-9

(102) Aleman AM et al.
Asthma related to inhalation of *Plantago ovata*.
Medicina Clinica 2001; 116: 20-2

(103) Khalili B et al.
Psyllium-associated anaphylaxis and death: a case report and review of the literature. Annals of allergy, asthma & immunology: official publication of the American College of Allergy, Asthma, & Immunology 2003; 91: 579-84

(104) Dioskurides.
*Materia medica*, 50-70 A.D. Übersetzung von Julius Berendes 1902; 2. Buch, Cap. 152, S.43
Wegerich; 4. Buch, Cap. 11, S.5 Holosteon; 4. Buch, Cap. 70, S. 24 Flohkraut

(105) Hagers
Handbuch der Pharmazeutischen Praxis,
Herausgeber Frerichs G, Arends G, Zörnig G, 2. Band, 1927,
Verlag von Julius Springer, Berlin

(106) Georg Fischer.
Heilkräuter und Arzneipflanzen.

Norman W. Blacow. London. The pharmaceutical press

(108) Walther H. Lewis.
Medical Botany. Plants affecting man’s health.

(109) Khan Usmanghani, Afftab Saeed, Muhammad Tanweer Alam.
Department of Pharmacognosy, Faculty of Pharmacy, University of Karachi, Pakistan.

(110) WHO monographs on selected medicinal plants,
Volume 1, Semen Plantaginis, p. 202-12, WHO Geneva 1999

(111) Bonithon-Kopp C et al.
Calcium and fibre supplementation in prevention of colorectal adenoma recurrence: a randomised intervention trial.
The Lancet 2000; 356: 1300-6

(112) GD Searle. Italian safety studies with Metamucil. Study IT-0001, pharmaco-toxicological expert report for Metamucil, January 2001

(113) GD Searle. Acute toxicity in the Charles River CD-1 mouse. SA 2067, pharmaco-toxicological expert report for Metamucil, January 2001


©EMEA 2007


